

Notice of Allowability

Application No.

10/780,847

Examiner

Herng-der Day

Applicant(s)

ANDERSON, JOHN

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment received 8/8/07.
2. ☒ The allowed claim(s) is/are 1, 3-12, 14-17, and 19-27, now renumbered as 1-24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

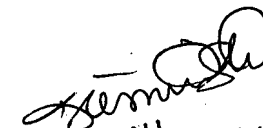
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


KAMINI SHAH
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

1. This communication is in response to Applicant's Amendment to Office Action dated February 8, 2007, filed August 8, 2007, and telephone interview conducted October 11, 2007.

1-1. Claims 1, 7, 11, 12, 14, 17, 23, and 27 have been amended. Claims 2, 13, 18, 28, and 29 have been canceled. Claims 1, 3-12, 14-17, and 19-27 are pending.

1-2. Claims 1, 3-12, 14-17, and 19-27 have been examined and allowed.

EXAMINER'S AMENDMENT

2. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to Applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

3. Authorization for this Examiner's amendment was given in a telephone interview with Mr. Jonathan M. Hollander (Reg. No.: 48,717) on October 11, 2007.

4. The claims have been amended as follows:

4-1. Replace claim 1 as follows:

1. (Currently Amended) A method of animating fluid, comprising:
determining a fluid surface at a first time value according to a fluid simulation;
adding at least one spray particle beneath the fluid surface, the spray particle having an initial state derived at least in part from the attributes of the fluid simulation;

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moving the spray particle independently of the fluid simulation according to at least its initial state;

rendering the fluid surface; and

rendering the spray particle in response to the spray particle being above the fluid surface.

4-2. Replace claim 27 as follows:

2. (Currently Amended) The information storage medium of claim 17, further comprising:
determining the fluid surface at a second time value according to the fluid simulation;
adding at least one additional spray particle beneath the fluid surface, the additional spray particle having an initial state derived at least in part from the attributes of the fluid simulation;
and

moving the spray particle and the additional spray particle independently of the fluid simulation according to at least their respective initial states.

4-3. Cancel claim 28 as follows:

28. (Cancelled)

4-4. Cancel claim 29 as follows:

29. (Cancelled)

Reasons for Allowance

5. The following is an Examiner's statement of reasons for allowance:

5-1. The closest prior art of record discloses:

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(1) A method for modeling and animating liquids (Foster et al., "Practical Animation of Liquids").

(2) A method for modeling the dynamic behavior of splashing fluids (O'Brien et al., "Dynamic Simulation of Splashing Fluids").

(3) A particle interaction method for simulating fluids (Premoze et al., "Particle-Based Simulation of Fluids").

5-2. Claims 1, 3-12, 14-17, and 19-27 are allowed in view of the claim amendments and Applicant's arguments at pages 4-17 of the Amendment filed August 8, 2007.

Specifically, independent claims 1 and 17 have been amended to identify the distinct combination of features including "the spray particle having an initial state derived at least in part from the attributes of the fluid simulation" and "moving the spray particle independently of the fluid simulation according to at least its initial state", which has not been uncovered in a single teaching, nor would a modification of prior art references be obvious to one of ordinary skill in the art to yield these limitations in the context of the claim.

Similarly, independent claim 12 has been amended to identify the distinct combination of features including "the plurality of spray particles is assigned an initial state derived at least in part from the state of the set of fluid particles" and "moving the plurality of spray particles independently of the fluid simulation according to at least the initial state of the plurality of spray particles", which has not been uncovered in a single teaching, nor would a modification of prior art references be obvious to one of ordinary skill in the art to yield these limitations in the context of the claim.

Moreover, as the courts have held that "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) and "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. In *re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). Therefore, independent claims 1, 12, and 17 have been allowed over the prior art of record. Dependent claims are allowed as they depend upon allowable independent claims.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Herng-der Day whose telephone number is (571) 272-3777. The Examiner can normally be reached on 9:00 - 17:30.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

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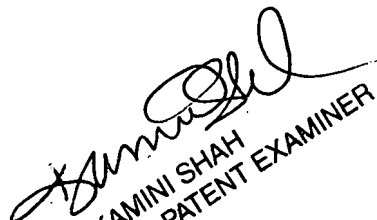
If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kamini S. Shah can be reached on (571) 272-2279. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Herng-der Day

October 12, 2007

H.D.


KAMINI SHAH
SUPERVISORY PATENT EXAMINER